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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,999	09/30/2003	Jessica L. Voss-Kehl	58227US002	5245

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3M INNOVATIVE PROPERTIES COMPANY  
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EXAMINER
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KEEHAN, CHRISTOPHER M

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,999

Applicant(s)

VOSS-KEHL ET AL.

Examiner

Christopher M. Keehan

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-13, 15, 19, 26-30, 32-39, 41, 43-50, 53 and 54 is/are rejected.
- 7) ☒ Claim(s) 7-9, 14, 16-18, 20-25, 31, 40, 42, 51 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/1/03, 10/16/03</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Examiner's Comments***

Regarding claims 32 and 46, it is the examiner's position that, while the preamble is drawn to a touch activated user input device and a method of making a touch activated device, the only structure in the body of the claims is a substrate and a composition coated thereon. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Therefore, the claims have been treated as set forth below.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 27, 28, 30, 32-35, 43, 44, 46, 47, 50, 53, and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Vanmaele et al. (2004/0163570 A1). The

Art Unit: 1712

examiner is relying on the provisional application filing date, which fully supports the above cited application. The provisional application, 60/455,606, can be obtained from Public Pair at the USPTO internet site ([www.uspto.gov](http://www.uspto.gov)). Regarding claims 27, 28, 30, Vanmaele et al. disclose a method of printing and a composition thereof comprising a mixture of inorganic nanoparticles present in an amount included in applicant's claimed range (sections 0087 and 0093) dispersed in polymethylsilsesquioxane (page 6, Table 1, formation I.10 and section 0159) in an amount included in applicant's claimed range (section 0159), a solvent (section 0159), and applying the composition onto a substrate by a digital printing technique, more specifically ink jet printing (Abstract), and drying thereafter (section 0145).

Regarding claims 32-35, 43, 44, Vanmaele et al. disclose a substrate and the composition with inorganic nanoparticles coated thereon (as set forth above), more specifically on a plastic polyethylene terephthalate substrate (section 0160).

Regarding claims 46, 47, 50, 53, and 54, Vanmaele et al. disclose providing a substrate, ink jetting a composition by containing polyorganosilsesquioxane and nanoparticles onto the substrate (as set forth above), and curing the composition at a temperature below 150°C (section 0145).

Claims 27, 29, 30, 32-34, 36-39, and 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuda et al. (6,586,104 B2). Regarding claims 27, 29, 30, 32-34, Matsuda et al. disclose a composition comprising a mixture of inorganic nanoparticles present in an amount included in applicant's claimed range (col.6, lines

Art Unit: 1712

12-15) dispersed in polymethylsilsesquioxane (col.4, lines 20-34) in an amount included in applicant's claimed range (col.6, lines 16-19), a solvent (col.6, line 11), and printing the composition onto a substrate (col.10, lines 1-5) by a digital printing technique, more specifically aerosol printing (col.6, lines 55-61).

Regarding claims 36-39, and 41, Matsuda et al. disclose a substrate as claimed (col.7, lines 13-56).

Claims 46 and 48 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama et al. (4,894,254). Regarding claims 46 and 48, Nakayama et al. disclose providing a substrate, and screen printing a composition containing polyorganosilsesquioxane onto the substrate, and curing the composition at a temperature below 150°C (col.3, lines 48-55).

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 10-13, 15, 19, and 26 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsuda et al. (6,586,104 B2). Regarding claims 1-4, 12, 13, 15 and 19, Matsuda et al. disclose a composition comprising a mixture of inorganic nanoparticles present in an amount

Art Unit: 1712

included in applicant's claimed range (col.6, lines 12-15) dispersed in polymethylsilsesquioxane (col.4, lines 20-34) in an amount included in applicant's claimed range (col.6, lines 16-19), a solvent (col.6, line 11), and an adhesion promoter or flexibilizer (col.6, lines 26-29). Matsuda et al. do not appear to specifically disclose the instantly claimed viscosity limitations. However, it appears these viscosities are inherently disclosed by Matsuda et al. because the materials of Matsuda et al. are the same as that as claimed by applicant, absent evidence to the contrary. If not inherent, then it would have been obvious to one of ordinary skill in the art at the time the invention was made for the composition of Matsuda et al. to have an at least similar viscosity because the molecular weights of the silsesquioxanes of Matsuda et al. (col.5, lines 53-60) are included in the range of molecular weights preferred by applicant (specification, page 16, lines 13-23).

Regarding claims 5, 6, 10, and 11, Matsuda et al. disclose adding a surface-modified nanoparticles in the size included in applicant's range (col.3, lines 36-53).

Regarding claim 26, Matsuda et al. disclose a solvent as claimed (col.5, lines 21-35).

Claims 1-4, 10-12, 15, 26, 45, and 49 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Vanmaele et al. (2004/0163570 A1). The examiner is relying on the provisional application filing date, which fully supports the above cited application. The provisional application, 60/455,606, can be obtained from Public Pair at the USPTO internet site

Art Unit: 1712

([www.uspto.gov](http://www.uspto.gov)). Regarding claims 1-4, 10-12, 15, 45, and 49, Vanmaele et al.

disclose a composition comprising a mixture of inorganic nanoparticles present in an amount included in applicant's claimed range (sections 0087 and 0093) dispersed in polymethylsilsesquioxane (page 6, Table 1, formation I.10 and section 0159) in an amount included in applicant's claimed range (section 0159), and a solvent (section 0159). Vanmaele et al. do not appear to specifically disclose the instantly claimed viscosity limitations. However, it appears these viscosities are inherently disclosed by Vanmaele et al. because the materials of Vanmaele et al. are the same as that as claimed by applicant, absent evidence to the contrary. If not inherent, then it would have been obvious to one of ordinary skill in the art at the time the invention was made for the composition of Vanmaele et al. to have an at least similar viscosity because the molecular weight of the silsesquioxanes of Vanmaele et al. (page 6, Table 1, formation I.10 and section 0159) are included in the range of molecular weights preferred by applicant (specification, page 16, lines 13-23).

Regarding claim 26, Vanmaele et al. disclose a solvent as claimed (section 0116).

### ***Allowable Subject Matter***

Claims 7-9, 14, 16-18, 20-25, 31, 40, 42, 51 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishimura et al. (2004/0005506 A1) disclose a composition comprising a polysilsesquioxane and particles that can include nanoparticles that can be surface treated with a silane. However, this document is not considered prior art as the PCT document was not published and was not filed in English.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Keehan whose telephone number is (571) 272-1087. The examiner can normally be reached on Monday-Friday, from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Application/Control Number: 10/674,999

Page 8

Art Unit: 1712

Christopher Keehan

December 28, 2004

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Art Unit 1712  
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